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ENVIRONMENT
& HEALTH

Sent via Electronic Mail

Mr. Brent Winder
Vice President
McMillan-McGee Corp.
4895 35B Street Southeast
Calgary, Alberta T2B 3M9
Canada

RE: TEMPORARY RELOCATION OF ERH EQUIPMENT
THIRD SITE, ZIONSVILLE, INDIANA

April 13, 2020

Ramboll
One Indiana Square
Suite 2335
Indianapolis, IN 46204
USA

T +1 317 423 8710
F +1 317 423 8720
www.ramboll.com

Dear Mr. Winder:

On March 25 USEPA approved the February 10 DNAPL Containment Area Sampling Work Plan and related March 13 Groundwater Sampling Addendum (Sampling Plan) for Third Site. On March 27, Geosyntec responded to the USEPA March 25 approval e-mail regarding additional work requested by the agency. Sampling within the DNAPL Containment Area is needed to identify the source of residual mass observed in compliance monitoring wells P-1 and P-2 following Electrical Resistance Heating (ERH) within the DNAPL containment area (Geosyntec February 10, 2020). Work is to be initiated by April 30. As stated in the Sampling Plan, the existing ERH equipment (e.g., extraction lines and cables) will need to be temporarily moved by the ERH contractor (McMillan-McGee Corp. (MM)) to a mutually agreed upon laydown area within the Third Site perimeter fence prior to commencing sampling activities to provide sufficient access to the proposed sampling locations so that the scope of work presented therein can be safely completed. This memorandum presents Geosyntec's and Ramboll's evaluation of the equipment that will need to be removed prior to initiating the first phase of the Sampling Plan. It is understood that MM may identify additional equipment that requires removal to facilitate the sampling. MM is requested to notify the Third Site Trust of that equipment prior to removal, if identified.

The first phase of the DNAPL Containment Area Sampling involves collecting groundwater samples using Hydrasleeves from twelve ERH extraction wells (X-B3, X-B4, X-C1, X-C3, XC4, X-D1, X-D2, X-D3, X-D4, X-E1, X-E2, and X-E3) as well as from two of the performance monitoring wells (P-1 and P-2). Prior to the collection of groundwater samples, MM will need to temporarily remove, to the agreed upon laydown area with the Third Site perimeter fence, any ERH equipment from the wells (i.e., pumps or air supply tubing) to facilitate access. When sampling of the DNAPL Containment Area is complete the equipment will need to be re-installed as directed by the Third Site Trustees. As it is possible that the soils in the vicinity of the investigation area may still have elevated temperatures, MM is being asked to confirm temperatures in the treatment cell using their existing equipment prior to moving it for the sampling.

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Site Preparation

The first step of the proposed sampling effort will be to ensure that all of the ERH equipment is shut down and de-energized. For safety reasons, MM is to assure that no power is turned on.

Extraction Wells

Attachment A includes a labeled photo of one of the ERH extraction well heads indicating what steps will need to be done in order to allow access for groundwater sampling. Attachment A also includes two engineering drawings for the extrication wells from MM's Remedial Design Report REV-C11 (April 23, 2018). Our understanding of the required steps to remove ERH well equipment includes:

1. Loosen camlock from side well port and disconnect line.
2. Loosen fittings around slurper tube and remove slurper tube from well. Tubing that has been pulled out of the well should be coiled into a plastic bag to keep it clean and stored adjacent to well provided it is sufficiently flexible.
3. Loosen bolts and remove upper portion of wellhead.

Once sampling has been completed, the wellhead should be reassembled by following the same steps in reverse.

Performance Monitoring Wells

Fiber optic temperature sensor strings (OptiTAM) were installed in performance monitoring wells P-1 and P-2 during the system restart in the summer of 2019. If the OptiTAMs are still in these wells they will also have to be removed by loosening the fittings at the wellhead and pulling out the OptiTAM string. These may not need to be reinstalled after sampling, however a well cap (slip cap or other) will need to be placed on the well once sampling is completed.

Planning for Future Soil and Groundwater Sampling

Results of this groundwater sampling will be used to help guide the installation of up to 14 soil borings within the DNAPL Containment Area using a sonic drilling rig to collect soil and additional groundwater samples. Once the soil boring locations have been confirmed, MM will be notified of the planned sampling. MM will then need to temporarily remove, to the mutually agreed upon laydown area, the DNAPL Containment Area fencing and equipment sufficiently to facilitate drilling at all of these locations. MM will be notified by the Trustees when sampling is complete so that the temporarily removed equipment and fencing can be replaced.

Please provide a schedule as to when the temporary equipment relocation work for the first sampling phase can be completed in order for the groundwater sampling to begin on or before April 30 as instructed by USEPA. Let us know if you have any questions.

Sincerely,

Ramboll US Corporation

Andrew A. Gremos, LPG, CHMM
Principal

D 317.803.4605
agremos@ramboll.com

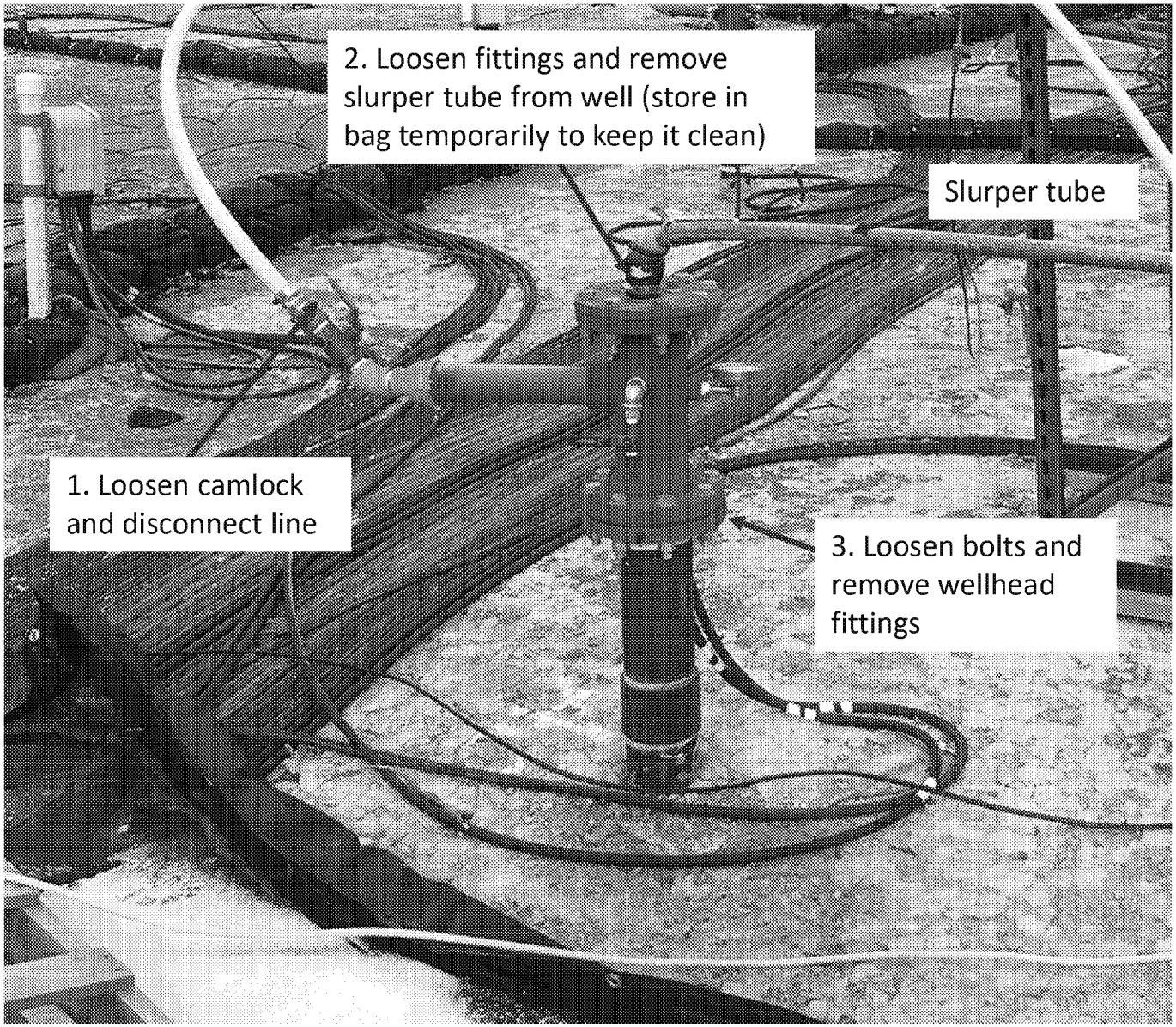
cc: Matt Ohl - USEPA
Thomas Krueger - USEPA
Douglas Petroff - IDEM
Norman W. Bernstein – N.W. Bernstein & Associates, LLC
Peter M. Racher – Plews Shadley Racher & Braun LLP
Suzanne O'Hara – Geosyntec Consultants
Christopher Gale - Geosyntec Consultants

Attachments:

A. ERH Equipment Requiring Removal

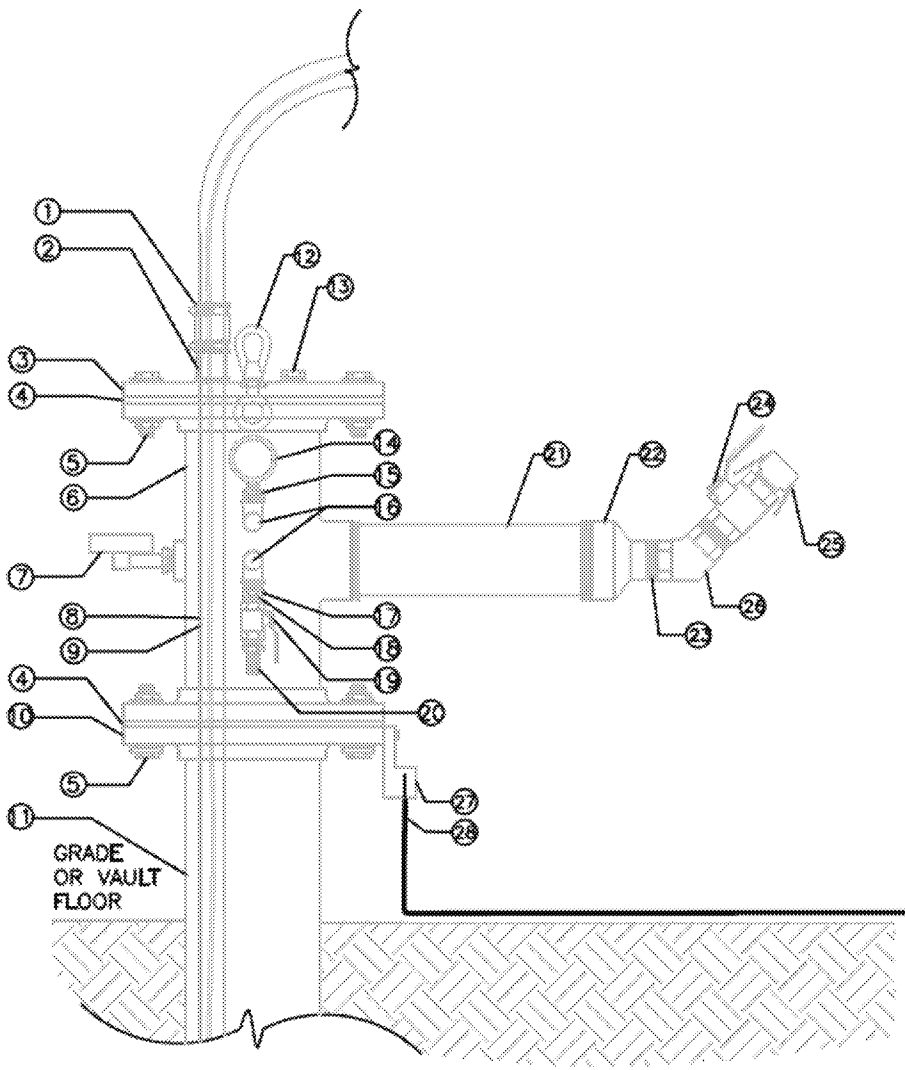
ATTACHMENT A

ERH EQUIPMENT REQUIRING REMOVAL



Extraction Well

MULTIPHASE EXTRACTION WELL WITH SLURPER TUBE DETAIL

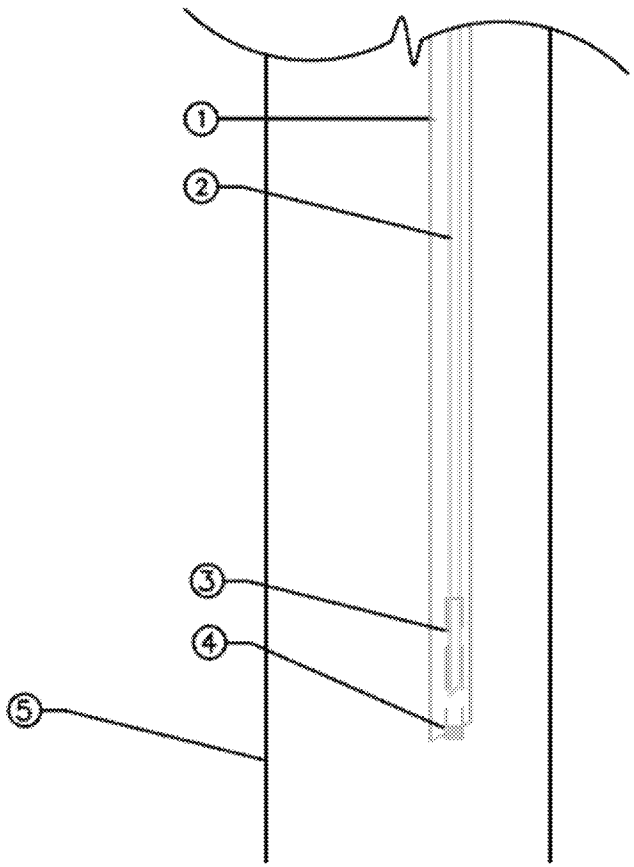


WELLHEAD COMPONENTS

1. 5/4" ELASTIC COMPRESSION FITTING
2. 5/4" NPT HALF–NPPLE, 3" LONG, GALV.
3. 4" ø 150# WELL COVER PLATE, STEEL
4. 4" ø 150# X 1/8" GASKET, VITON (TYP.)
5. 5/8" BOLT, C/W LOCK WASHER AND HEX NUT, ZINC (TYP.) x8
6. 4" ø Mc² WELLHEAD ASSEMBLY X 150# FLANGE ENDS, STEEL
7. TEMPERATURE GAUGE 0–250 F X 1/2"M NPT
8. 1" I.D. PEX GROUNDWATER EXTRACTION HOSE
9. ¼" I.D. PTFE COMPRESSED AIR LINE (INTERNAL)
10. 4" ø 150# FLANGE X 4"F BSP, STEEL
11. 4" ø M BSP WELL STICKUP, CARBON STEEL
12. 1/2" LIFTING EYE ASSEMBLY, WITH GASKET
13. 3/4" NPT SAMPLE PORT PLUG, GALV. (TYP.)
14. VACUUM GAUGE, 0–30" HG X 1/4"M NPT
15. 1/2"M NPT x 1/4"F NPT BUSHING, GALV.
16. 1/2" NPT STREET ELBOW, GALV. x2
17. 1/2"M NPT x 3/8"F NPT REDUCER BUSHING, GALV.
18. 3/8" NPT CLOSE NIPPLE, BRASS
19. 3/8" NPT BALL VALVE, BRASS
20. 3/8"M NPT x 1/4" HOSE BARB, BRASS
21. 2" NPT PVDF NIPPLE, 12" LONG
22. 2"F NPT X 1"F NPT BELL REDUCER, GALV.
23. 1" NPT CLOSE NIPPLE, GALV. x 2.
24. 1" NPT BALL VALVE, BRASS
25. 1"M NPT X 1" FEMALE CAMLOCK (PART B), ALLOY
26. 1" NPT 45DEG COUPLER, GALV.
27. #1/0 GROUNDING LUG, ALUM.
28. #1/0 ET–DSP NEUTRAL WIRE

NOTE: Wellhead painted with Dolph-Spray(R) ER-41 and electrically isolated from piping with the PVDF nipple. Wellhead details are elevation views.

SLURPER TUBE DETAIL



SLURPER TUBE DETAIL COMPONENTS

1. 1" I.D. PEX TUBE CUT ON 45 DEGREE ANGLE
2. ¼" I.D. COMPRESSED AIR LINE CUT ON 45 DEGREE ANGLE
3. 1/2" HDPE INNER TUBE AIRLINE HOUSING
4. 1/2" NPT PLUG, GALV.
5. 4" NOMINAL I.D. SCHED. 40 0.010" SLOTTED CONTINUOUS WIRE WRAP SCREEN

NOTE: Wellhead details are elevation views.